

TRIAL TRANSCRIPT

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UNITED STATES DISTRICT COURT

NORTHERN DISTRICT OF CALIFORNIA

Before The Honorable Richard Seeborg, Judge

ANIBAL RODRIGUEZ, et al.,)	
individually and on behalf of)	
all others similarly situated,)	
)	
Plaintiffs,)	
)	
VS.)	NO. 3:20-CV-04688 RS
)	
GOOGLE LLC,)	
)	
Defendant.)	
)	

San Francisco, California
Friday, August 29, 2025

TRANSCRIPT OF JURY TRIAL PROCEEDINGS

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CSR No. 7445, Official United States Reporter

1 **A.** Yeah. This is the trip of the Doritos. It's pretty cool,
2 actually. So, once again, when a user is using a third-party
3 app with GA4F and he does something, presses a button or
4 sometimes does nothing and just is engaged, sits on a screen
5 for a few seconds, it generates what's called an event. And
6 these events are packaged up by the SDK and then transmitted to
7 Google's servers from that device.

8 **Q.** What else is packaged up there?

9 **A.** Okay. So this is meant to show what's inside that bundle,
10 event data, the kind of event. Is it that, you know, someone's
11 first opening the app for the first time; they're showing a
12 certain screen; they've clicked on a button? Those can be
13 events that are captured and sent.

14 And then the DSID, that's the Doritos, that's the GAIA
15 which is tied to the user's identity but it's encrypted. So
16 even if somebody got ahold of it, it would be meaningless
17 essentially.

18 And then there's the AdId, that's the advertising ID for
19 Android, and the App Instance ID, which Mr. Ganem explained was
20 an identifier that was generated for that install of that app
21 on that device.

22 And then there's some user properties, which I'll talk
23 about in a second.

24 **Q.** So if I were to get ahold of this number one bundle of
25 data, would I be able to determine whose Google Account the

1 data belongs to?

2 **A.** No. I assume you don't have -- this is not your phone, so
3 you wouldn't be able to link the AdId to the GAIA, even though
4 you have both, because the GAIA is encrypted and that makes it
5 undiscernible.

6 **Q.** Let's move forward.

7 Can you just explain what's going on here?

8 **A.** Right. So I have this animation to show what's going on
9 after the packet is transmitted from the phone, over the
10 Internet, to Google's analytic server. It's received by one of
11 the computers in this rack diagram.

12 **Q.** Professor Black, we've heard the plaintiffs say a number
13 of times that Google takes analytics data from users' phones.
14 From your perspective as a computer scientist, is Google taking
15 the data from the user's phone?

16 **A.** I don't think I'd phrase it that way. That kind of evokes
17 this image that the server is going out and seizing things from
18 the phones. And the server is passively just sitting there,
19 waiting for information to come in. Just like -- you know, I'm
20 old enough that I used to send mail using a letter and drop it
21 in a mailbox. And I'd go to the mailbox and put it in the
22 slot. I would never describe that as the mailbox is out taking
23 people's letters. It's just receiving letters that are being
24 sent or deposited into it.

25 **Q.** Which person or entity is responsible for causing the data

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1 to be sent from the phone to the Google server?

2 **A.** The phone initiates the sending and the server is just
3 there as a recipient to receive that information.

4 **Q.** And if an app developer chooses not to incorporate
5 Google Analytics for Firebase, would the data be sent from the
6 phone to the server?

7 **A.** No. You would have to -- you have to install the SDK.

8 **Q.** Now, at this stage of the process, is the data in question
9 saved by the server?

10 **A.** It's not -- it's not saved to disk. Of course, when it's
11 received by the server, it's in memory. That's just how
12 computers work. If you receive information, it's in memory,
13 but I wouldn't call that saving. Saving suggests that it's
14 written to persistent medium like hard disk or something.

15 **Q.** Dr. Hochman testified that at the point during this
16 consent check process where the server receives the data,
17 there's a copy made. Do you recall that?

18 **A.** I do.

19 **Q.** Would you call -- based on your understanding of how this
20 system works, would you agree with him?

21 **A.** Since data in a computer -- I know some people code here,
22 so you'll relate to this. But when data moves through a
23 computer, typically it's given from one function to another.
24 That inherently creates a duplicate because that's just how
25 computers work, but I wouldn't say that it's making a copy.

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1 **Q.** Now, Dr. Hochman suggested, when he was testifying, that
2 Google should check consent on the device rather than using
3 this isolation system to check consent. Do you have a response
4 to that?

5 **A.** Mr. Ganem explained why Google ultimately decided this was
6 better. He said it was closer to the source of truth where you
7 do the check.

8 I also, as a security person, wouldn't want sensitive
9 information being handled on the device. Devices can be
10 compromised much more readily than something secure inside of
11 Google's server warehouse.

12 **Q.** Okay. So I think you said already thumbs-up, this is a
13 WAA-on packet of data. So please explain what happens next.

14 **A.** So since consent is given, thumbs-up, this information can
15 be stored in the user's Google Account, can be used to
16 personalize ads and Search and Maps and so forth.

17 **Q.** Now, tell us what happens if it's thumbs-down and the
18 consent check server reports that WAA or sWAA are off.

19 **A.** Sure. So in that case this is a sWAA-off user; and as
20 we've heard many, many times, the data is de-identified and
21 then stored into a separate pseudonymous log not tied to the
22 user's identity.

23 **Q.** What happens to the GAIA ID if it's thumbs down?

24 **A.** The GAIA ID is not stored in the pseudonymous events log.
25 Instead, there's just pseudonymous identifiers.

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1 **Q.** And just to be clear, though I think we've heard it many
2 times, but did you, as the person reviewing the evidence and a
3 computer scientist, did you see any evidence that Google
4 combines data from the different apartments?

5 **A.** No. I've seen no evidence that they try to
6 cross-reference or combine data from different isolated silos
7 or apartments. I mean, nor would they be able to because these
8 are encrypted under different keys. So even if things would
9 match up, if they were not encrypted, once they're encrypted,
10 they look -- even a match would look like a mismatch because of
11 the encryption.

12 **Q.** Well, let me ask you about that.

13 I think Dr. Hochman said something about if even one of
14 these rare instances leaked out of the apartment into the wild,
15 like a hack or something, that that could theoretically harm
16 users. Do you have a response to that?

17 **A.** Yeah. Because each apartment is encrypted under a
18 different key, then even if the information were acquired by a
19 bad guy, this cross-referencing wouldn't be possible.

20 And so if, you know, one of these misbehaving apps had
21 PII, which they do, then exposing the encrypted version -- the
22 encrypted information that goes with that PII doesn't tell you
23 where Mr. Rodriguez' information is in every other apartment
24 because it's encrypted differently.

25 **Q.** Now, you explained to the jury that the latitude and